Quality Control

										DQA:	Date	2:	
NCR: Y	es / No				WORK ORDER NON-	COI	NFOR	MANCE / UP	DATE				
						-				QA Closed:	Date):	
Work Orde	ė.				DISPOSITION		AGAINST DEPARTMENT/PROCESS						
				· · · · · · · · · · · · · · · · · · ·	Rework	Skid-tube Crosstube			Dro.	Water Jet d. Eng. Coor.	Engineering Quality		
Part N	o				Scrap		Machining	Small Fab	 i	re/Packaging	Other		
NCR No.					Use-as-is Work Order Update	-	8	noforming Large Fab	Finishing Composite	Kec/Stor	Supplier		
					work Order Opdate	. ل		Large Fau	Composite		Jupplier		
Root				Descri	ption of work order update		Initial	Ac	tion	Sign &			
Cause	Date	Step	Qty	,	or Non-conformance	Ch	nief Eng	Desc	ription	Date	Verification	QC Inspector	
oc/Data					-								
quip/Tooling								•					
Operator	_	l											
/laterial							•						
etup													
Other			ļ]		İ					1		
rocess		1											
upplier			1										
raining						1							
Inapproved		<u> </u>		<u> </u>									
				·, · · · · · · · · · · · · · · · · · ·		FAUL	LT CATE	GORY				 	
Landin	g Gear		÷.	;	General		1 6		* 7	Ovalized	, <u>)</u>	: Pressure/Forced	
	Bending	. •		<u> </u>	Bend	-	Grain		-	Over/Under	tolorance	Temperature/Cure	
	Centre N	ot Conce	ntric to	o/s	BOM/Route	_	Hardwa		-	Part Incorre	! -	Weld	
}	Cracks			 	Broken/Damaged	-	-1 '	on Incomplete	Ungloor	Part Lost/Mi	_	Wrong Stock Pulled	
ŀ	Crushed	Crimped			Burrs	\vdash	Mainte	ions Incomplete/	Unctear	Part Moved	issilig [
}	Cuffs	_*		 	Countarion	-	Mislabe		 -	→	Mrong		
}	Heat Tre		T b	<u> </u>	Countersink	\vdash	Misread		_	Positioned Wrong Power Loss/Surge		Other	
}	Inspection		ilupe	<u> </u>	Cut Too Short Drill Holes	\vdash	Offset	ı	<u> </u>	Trower ross/	Juige [Journe	
}	Ripples in		Evtrusis	<u> </u>	Drawing	-	-1	Calibration				- 3 -	
Torque Waves in Extrusion			IDIAWIIK	1	Jour or c	Landi ation							

Out of Sequence

Outside Dimensions

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Turning Sequence

Wave/Twist in Tube

Finish

Folio

Work Ord Tuesday, May 2				*1(018	387*					*		Page 2
Item ID: Revision ID: Item Name:	D3216-3 Fitting		aan maka sar ii ka	Accept	•	*N900	040	100	* Se	etup	Start Stop	*NS	11* 12*
Start Date: Required Date: Reference:	5/21/2013	Start Qty: 5.00 Req'd Qty: 5.00	*5* *5*			Cust Item II Customer:	D:						
Approvals:	Process Pla	n:	Date:	Tooling: SPC (Y/N):			nte:		R	un	Start Stop	*NR	?1* ?2*
Sequence ID/ Work Center 11 130 *120* Small Fab Small Fab	- ij	Operation Description Small Fab Memo Deburr if nec	cessary. Tumble until parts	Set Up/ Run Hour 0.00 0.00 have a polished fin		Tool ID	Tool#		Accept Qty	Reje Qty			nsp. Stamp
140 . *1111 * QC Quality Control		QC5- Inspect part comple	eteness to step on W/O	0.00	135	3 C)			S				
*150 *150* Packaging Packaging		ldentify as per dwg & Sto	ock Location:	3) 0.00 0.00	-				5x			B) 5-30

DQA:	Date:	
·	-	•

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

									QA Closed:	Date:	
Work Order	<u>.</u> .				DISPOSITION			AGAINST DE	PARTMENT	/PROCESS	
Part No					Rework Scrap Use-as-is Work Order Update	The	Skid-tube Machining rmoforming Large Fab	Crosstube Small Fab Finishing Composite	Pro Rec/Sto	Engineering Quality Other	
Root				Descri	ption of work order update	Initial	Ac	tion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Chief Er	ng Desc	ription	Date	Verification	QC Inspector
Doc/Data											
quip/Tooling]									
Operator		ļ				ĺ					
Material											
Setup											
Other									<u> </u>		
Process											
Supplier		,									
Training											
Jnapproved						<u> </u>				<u> </u>	
			g € ,			AULT CA	regory			<u> </u>	*2
Landin	_		ghir waste	/11 	General	<u>, </u>	(10	Tank of the	7 ''	• • •	· · · · · · · · · · · · · · · · · · ·
·	Bending			. -	Bend	Graii		<u> </u>	Ovalized		Pressure/Forced Temperature/Cure
-	Centre No	ot Concer	ntric to (^{D/S} -	BOM/Route	Hard		<u> </u>	Over/Under Part Incorred		Weld
-	Cracks	-· .		<u> </u>	Broken/Damaged		ction Incomplete actions Incomplete/	/Unaloge	Part Lost/Mi	 	Wrong Stock Pulled
-	Crushed/	Crimped		-	Burrs	\vdash	ictions incomplete/ itenance	Unclear	Part Moved	issing	J WYONG Stock Fulled
-	Cuffs		Contamination Countersink	\mapsto	beled	<u> </u>	Positioned V	Vrong			
}	Heat Trea		Tubo	-	Cut Too Short	Misre			Power Loss/		Other
			Drill Holes	Offse		L	٦. ٥٠٠٠ د د د د د د د د د د د د د د د د د		1		
Ripples in Bend Drill Holes Torque Waves in Extrusion Drawing			Out of Calibration								
Turning Sequence Finish			Out of Sequence								
Wave/Twist in Tube Folio			4	\vdash	de Dimensions						

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Work Orde Tuesday, May 21				, * 101				Page 3		
Item ID: Revision ID: Item Name:	D3216-3 Fitting			Accept	*N9000	14010) ()*	Setup Start Stop		*NS1* *NS2*
Start Date: Required Date: Reference:	5/21/2013 5/24/2013	Start Qty: 5.00 Req'd Qty: 5.00	*5* *5*		Cust Item ID Customer:	:				
Approvals:	Process Pla	an:	Date:	Tooling:	Date		Run	Start	*NR1*	
	QC:		Date:		Date	e:			Stop	*NR2*
Sequence ID/ Work Center II 160 *160*)	Operation Description QC21- Final Inspection -	Work Order Release	Set Up/ Run Hours 0.00	Tool ID	Tool # Plar Cod		t Rej Qty		Reject Insp. Stamp
QC Quality Control		Memo		0.00					<i>[</i>	MF 13-5-30

		DQA:	Date:	
NCP: Vas / No	WORK ORDER NON-CONFORMANCE / LIPDATE			

TTCTT.		, 110									QA Closed:	Date:	
Work Orde	er:					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Part N	- - No.					Rework Scrap Use-as-is		Skid-tube Crosstube Machining Small Fab Thermoforming Finishing				Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other
NCR N	No					Work Order Update		THETH	Large Fab	Composite	necy stor	Supplier	
Root					Descri	ption of work order update	ı	nitial	Act	tion	Sign &		
Cause		Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Descr	ription	Date	Verification	QC Inspector
Doc/Data													
Equip/Tooling													
Operator	Ш												
Material	Ш												
Setup	Ш	•										-	}
Other	Ш												
Process													
Supplier	Ш		,								·		
Training	Ш												
Unapproved													
			<u></u>				AUL	T CATE	GORY				
Landi						General		i			 1	_	7
	-	Bending				Bend	\vdash	Grain			Ovalized	_	Pressure/Forced
		Centre No	t Concer	ntric to	O/S	BOM/Route	\vdash	Hardwa			Over/Under	—	Temperature/Cure
	ш	Cracks				Broken/Damaged	\blacksquare		ion Incomplete		Part Incorred	 	Weld
	-	Crushed/0	Crimped		<u> </u>	Burrs	-		tions Incomplete/I	Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
		Cuffs			<u> </u>	Contamination	—	Mainte		 	Part Moved		
'	\vdash	Heat Trea			<u></u>	Countersink	-	Mislabe		<u></u>	Positioned V		1 .
į	∺	Inspection		Tube	<u> </u>	Cut Too Short	_	Misread	d	<u></u>	Power Loss/	Surge	Other
	${m o}$	Ripples in			<u> </u>	Drill Holes	-	Offset					
		Torque W			n	Drawing	-		Calibration	·			
	Ш	Turning So	equence		L	Finish		Out of	Sequence				
Wave/Twist in Tube			Folio		Outside Dimensions								

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Tuesday, May 21, 2013 9:12:13 AM

Work Order ID:

101887

Parent Item:

D3216-3

Parent Item Name:

Fitting

Start Date: 5/21/2013

Required Date: 5/24/2013

Start Qty: 5.00

Required Qty: 5.00

Comments:

IPP: A03.10.28New IssueKJ/RF

IPP Rev:B Now on Wateriet 06-07-03 JLM

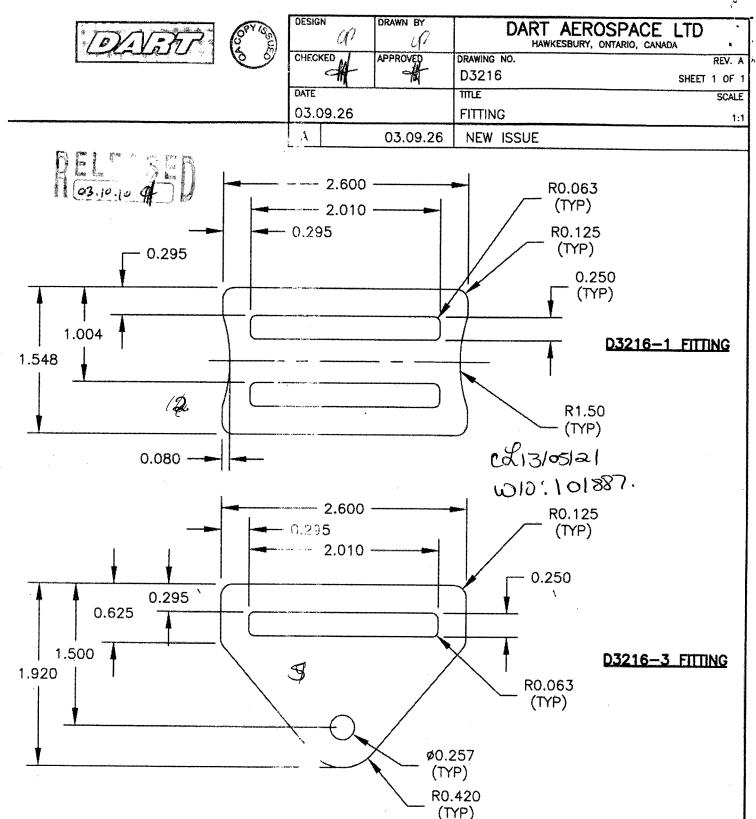
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status	
M304S11GA 304/316 0.125 Sheet		Purchased	No			110	sf	160.7933	0.0288	0.1515789 C	<u>عطا ر</u>	00/	te 13.	ر '2،ک
				Location		Loc Qty	<u>Lo</u>	c Code				1	1	
				MAT020		160.7932632							i	
				1225	121	19.1432602					-			
				1244	45	141.65			124	1493				

NCR:	Yes	1	No

DQA: Date:

NCR: Ye	es / No				WORK ORDER NON-C	CONFOR	RMANCE / UF	ZDATE	QA Closed:	Date:	•
Work Order	<u>.</u> .				DISPOSITION			AGAINST DE	PARTMENT	/PROCESS	
Part No	D				Rework Scrap Use-as-is	The	Skid-tube Machining moforming	Crosstube Small Fab Finishing Composite	-₹	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
NCR No	o				Work Order Update		Large Fab	Composite[]	Supplier[
Root Cause	Date	Step	Qty		ption of work order update or Non-conformance	Initial Chief En	1	ction cription	Sign & Date	Verification	QC Inspector
occ/Data quip/Tooling Operator Material eetup Other Process supplier raining	15 .							* Agent with	1		
			<u>. </u>		F	AULT CAT	EGORY		1	•	
Landin	g Gear Bending Centre No Cracks Crushed/ Cuffs Heat Trea Inspectio Ripples in Torque W Turning S	Crimped at n Strip in n Bend Javes in E	Tube Extrusio		General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes Drawing Finish	Instru Main Misla Misre Offse	vare ction Incomplete ctions Incomplete tenance beled ad	/Unclear	Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/	ct issing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
-	Wave/Tw			-	Folio	—	de Dimensions				

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D3216-1/-3 FITTING

- 1) MATERIAL: AISI 304/316 PLATE U 25 THICK (REF DART SPEC. M304S11GA)
- FINISH: MOLECRO POLISH
- 3) ALL DIMENSIONS ARE IN INCHES
- TOLERANCES ARE PER DART (1951) 18 UNLESS OTHERWISE NOTED.
- BREAK ALL SHARP EDGES 0.005 TO 0.015

DART AEROSPACE LTD	Work Order:	101887
Description: FITTING	Part Number:	D3216-3
Inspection Dwg: 53216 Rev: A		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
\$ 0.257	1006 -0.00	0.256	J		V	3KM-01
0.250	tl-0.010	0.243	/		>	
2.010	+1-0.010	2.009	$\sqrt{}$		\	
6,295	+1-0.010	0.300	\checkmark		>	
2.600	+1-0.010	2.604			>	
0.295	71-0.010	0.296	1		٧	
0.625	41-0.010	0.625			٧	
1.500	+1-0.010	1.501	\		V	
1,920	+1-0.010	1926	1		V	
	,					
:						
•						
	·			·		·
			-0An			

Measured by:	Audited by:	37	Preliminary Approval:	
Date: 13.05.28	Date:	13528	Date:	

1	Rev	Date	Change	Revised by	Approved
	Ħ	10.04.14	Added preliminary approval	KJ	

\$ 10.04.15